



PTO/SB/08a (08-03)

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 1 of 8

**Complete if Known**

Application Number	10/782,316
Filing Date	February 19, 2004
First Named Inventor	Endres
Art Unit	2881 2611
Examiner Name	Not Yet Assigned NURUL MATIN
Attorney Docket Number	S0465/283640

**U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
/NM/		US- RE35,774	04-21-1998	Moura et al.	
/NM/		US- 2,138,330	11-29-1938	Thompson	
/NM/		US- 2,977,551	03-28-1961	Gibson et al.	
/NM/		US- 3,386,033	05-28-1968	Copeland et al.	
/NM/		US- 3,703,685	11-21-1972	Simopoulos et al.	
/NM/		US- 3,714,859	01-30-1973	Firman	
/NM/		US- 3,774,218	11-20-1973	Fowler	
/NM/		US- 3,873,771	03-25-1975	Kleinerman et al.	
/NM/		US- 3,999,005	12-21-1976	Dickinson	
/NM/		US- 4,081,497	03-28-1978	Tokumitsu et al.	
/NM/		US- 4,115,778	09-19-1978	Snow	
/NM/		US- 4,302,626	11-24-1981	Streeter	
/NM/		US- 4,310,920	01-12-1982	Hayes	
/NM/		US- 4,316,215	02-16-1982	Yasumoto et al.	
/NM/		US- 4,322,842	03-30-1982	Martinez	
/NM/		US- 4,337,479	08-29-1982	Tomimoto et al.	
/NM/		US- 4,379,947	04-12-1983	Warner	
/NM/		US- 4,459,595	07-10-1984	Kramer et al.	
/NM/		US- 4,469,437	09-04-1984	Yuasa et al.	
/NM/		US- 4,478,484	10-09-1984	Haskell	
/NM/		US- 4,513,415	04-23-1985	Martinez	
/NM/		US- 4,523,225	06-11-1985	Masuda et al.	
/NM/		US- 4,535,352	08-13-1985	Haskell	
/NM/		US- 4,551,011	11-05-1985	Yuasa et al.	
/NM/		US- 4,575,225	03-11-1986	Yuasa et al.	
/NM/		US- 4,576,470	03-18-1986	Yuasa et al.	
/NM/		US- 4,587,495	05-06-1986	Osawa et al.	
/NM/		US- 4,589,011	05-13-1986	Rzeszewski	
/NM/		US- 4,602,260	07-22-1986	Lindenmeier	
/NM/		US- 4,607,230	08-19-1986	Kaku et al.	
/NM/		US- 4,704,025	11-03-1987	Yuasa et al.	
/NM/		US- 4,750,036	06-07-1988	Martinez	
/NM/		US- 4,754,233	06-28-1988	Pickett	

Examiner Signature	/Nurul Matin/	Date Considered	12/21/2007
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 801.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

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Sheet 2 of 8

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First Named Inventor	Endres
Art Unit	2881 2611
Examiner Name	Not Yet Assigned <b>NURUL MATIN</b>
Attorney Docket Number	S0465/283640

**U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
/NM/		US- 4,821,097	08-11-1989	Robbins	
/NM/		US- 4,870,489	09-26-1989	Ducet	
/NM/		US- 4,879,606	11-07-1989	Walter et al.	
/NM/		US- 4,882,614	11-21-1989	Kageyama et al.	
/NM/		US- 4,907,218	03-06-1990	Inoue et al.	
/NM/		US- 4,928,244	05-15-1990	Ismardi	
/NM/		US- 4,928,177	05-22-1990	Martinez	
/NM/		US- 4,944,032	07-24-1990	Kageyama et al.	
/NM/		US- 4,958,230	09-18-1990	Jonnalagadda et al.	
/NM/		US- 4,985,769	01-15-1991	Yasumoto et al.	
/NM/		US- 5,006,296	04-09-1991	Tsinberg	
/NM/		US- 5,019,830	05-28-1991	Harada	
/NM/		US- 5,036,386	07-30-1991	Yasumoto et al.	
/NM/		US- 5,038,402	08-06-1991	Robbins	
/NM/		US- 5,087,975	02-11-1992	Citta et al.	
/NM/		US- 5,093,718	03-03-1992	Hoarty et al.	
/NM/		US- 5,103,295	04-07-1992	Uwabata et al.	
/NM/		US- 5,103,310	04-07-1992	Gibson et al.	
/NM/		US- 5,126,998	06-30-1992	Stem, Jr.	
/NM/		US- 5,132,988	07-21-1992	Fisher et al.	
/NM/		US- 5,134,464	07-28-1992	Basile et al.	
/NM/		US- 5,142,353	08-25-1992	Kageyama et al.	
/NM/		US- 5,151,783	09-29-1992	Faroudja	
/NM/		US- 5,172,126	12-15-1992	Naito	
/NM/		US- 5,177,604	01-05-1993	Martinez	
/NM/		US- 5,214,501	05-25-1993	Cavellerano et al.	
/NM/		US- 5,220,420	06-15-1993	Hoarty et al.	
/NM/		US- 5,235,619	08-10-1993	Beyers, II et al.	
/NM/		US- 5,247,351	09-21-1993	Cho	
/NM/		US- 5,270,817	12-14-1993	Hayashi et al.	
/NM/		US- 5,276,507	01-04-1994	Uwabata et al.	
/NM/		US- 5,287,180	02-15-1994	White	
/NM/		US- 5,291,289	03-01-1994	Huiyalkar et al.	
/NM/		US- 5,293,633	03-08-1994	Robbins	

Examiner Signature	/Nurul Matin/	Date Considered	12/21/2007
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Sheet

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Application Number	10/782,316
Filing Date	February 19, 2004
First Named Inventor	Endres
Art Unit	2684 2611
Examiner Name	Not Yet Assigned NURUL MATIN
Attorney Docket Number	S0465/283640

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		Number - Kind Code <sup>2</sup> (if known)			
/NM/		US- 5,321,514	08-14-1994	Martinez	
/NM/		US- 5,327,460	07-05-1994	Batrani	
/NM/		US- 5,357,284	10-18-1994	Todd	
/NM/		US- 5,386,239	01-31-1995	Wang et al.	
/NM/		US- 5,412,720	05-02-1995	Hoarty	
/NM/		US- 5,430,661	07-04-1995	Fisher et al.	
/NM/		US- 5,442,403	08-15-1995	Yasumoto et al.	
/NM/		US- 5,448,299	09-05-1995	Yang et al.	
/NM/		US- 5,461,426	10-24-1995	Limberg et al.	
/NM/		US- 5,534,933	07-09-1996	Yang	
/NM/		US- 5,550,578	08-27-1996	Hoarty et al.	
/NM/		US- 5,550,579	08-27-1996	Martinez	
/NM/		US- 5,557,316	09-17-1996	Hoarty et al.	
/NM/		US- 5,563,664	10-08-1996	Yang et al.	
/NM/		US- 5,566,121	12-17-1996	Moura et al.	
/NM/		US- 5,589,872	12-31-1996	Martinez	
/NM/		US- 5,596,361	01-21-1997	Martinez	
/NM/		US- 5,694,424	12-02-1997	Ariyavisitakul	
/NM/		US- 5,714,965	02-03-1998	Taguchi	
/NM/		US- 5,742,902	04-21-1998	Shore	
/NM/		US- 5,809,086	09-15-1998	Ariyavisitakul	
/NM/		US- 5,812,184	09-22-1998	Martinez	
/NM/		US- 5,818,441	10-06-1998	Throckmorton et al.	
/NM/		US- 5,818,845	10-06-1998	Moura et al.	
/NM/		US- 5,828,655	10-27-1998	Moura et al.	
/NM/		US- 5,859,852	01-12-1999	Moura et al.	
/NM/		US- 5,909,253	06-01-1999	Jonnalagadda et al.	
/NM/		US- 5,946,047	08-31-1999	Levan	
/NM/		US- 5,946,048	08-31-1999	Levan	
/NM/		US- 5,946,322	08-31-1999	Moura et al.	
/NM/		US- 5,946,351	08-31-1999	Ariyavisitakul et al.	

Examiner  
Signature

/Nurul Matin/

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Sheet 4 of 8

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Application Number	10/782,316
Filing Date	February 19, 2004
First Named Inventor	Endres
Art Unit	2881 <i>164</i>
Examiner Name	Not Yet Assigned <i>NM</i>
Attorney Docket Number	S0465/283640

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/NM/		US- 5,958,346	09-21-1999	Levan	
/NM/		US- 5,959,660	09-28-1999	Levan	
/NM/		US- 5,959,997	09-28-1999	Moura et al.	
/NM/		US- 5,961,603	10-05-1999	Kunkel et al.	
/NM/		US- 5,994,891	11-30-1999	Hubbell	
/NM/		US- 6,005,850	12-21-1999	Moura et al.	
/NM/		US- 6,012,181	01-04-2000	Ariyavisitakul et al.	
/NM/		US- 6,016,316	01-18-2000	Moura et al.	
/NM/		US- 6,018,764	01-25-2000	Field et al.	
/NM/		US- 6,034,678	03-07-2000	Hoarty et al.	
/NM/		US- 6,047,159	04-04-2000	Powell et al.	
/NM/		US- 6,066,993	05-23-2000	Yamamoto et al.	
/NM/		US- 6,073,030	06-08-2000	Nair et al.	
/NM/		US- 6,100,883	08-08-2000	Hoarty	
/NM/		US- 6,104,727	08-15-2000	Moura et al.	
/NM/		US- 6,201,536	03-13-2001	Hendricks et al.	
/NM/		US- 6,226,323	05-01-2001	Tan et al.	
/NM/		US- 6,240,133	05-29-2001	Sommer et al.	
/NM/		US- 6,268,774	07-31-2001	Soumyanath	
/NM/		US- 6,305,020	10-16-2001	Hoarty et al.	
/NM/		US- 5,666,168	09-09-1997	Montgomery et al.	
/NM/		US- 5,617,148	04-01-1997	Montgomery	
/NM/		US- 5,587,743	12-12-1996	Montgomery et al.	
/NM/		US- 5,559,559	09-24-1996	Jungo et al.	
/NM/		US- 3,924,060	12-02-1975	Bedford	
/NM/		US- 3,984,624	10-05-1976	Waggener	
/NM/		US- 5,243,423	09-07-1993	DeJean et al.	
/NM/		US- 3,838,444	09-24-1974	Loughlin et al.	
/NM/		US- 6,829,298	12-07-2004	Abe et al.	
/NM/		US- 2002/0186764	12-12-2002	Amin et al.	
/NM/		US- 2003/0095590	05-22-2003	Fuller et al.	
/NM/		US- 6,385,237	05-07-2002	Tsui et al.	
/NM/		US- 5,585,975	12-17-1996	Bliss	
/NM/		US- 5,379,324	01-03-1995	Mueller et al.	
/NM/		US- 6,314,134	11-06-2001	Werner et al.	
/NM/		US- 2001/0022813	09-20-2001	Tan et al.	
/NM/		US- 3,974,449	08-10-1976	Falconer	
/NM/		US- 6,680,971	01-20-2004	Tazebay et al.	
/NM/		US- 2003/0156603	08-21-2003	Rakib et al.	
/NM/		US- 6,341,360	01-22-2002	Abdelilah et al.	
/NM/		US- 4,882,725	11-21-1989	Noda et al.	

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Art Unit

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Examiner Name

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/NM/		US- 6,310,548	10-30-2001	Stephens, Jr. et al.	
/NM/		US- 6,356,586	03-12-2002	Krishnamoorthy et al.	
/NM/		US- 6,366,613	04-02-2002	Sommer et al.	
/NM/		US- 6,370,571	04-09-2002	Medin, Jr.	
/NM/		US- 6,377,529	04-23-2002	Lee et al.	
/NM/		US- 6,426,973	07-30-2002	Madhow et al.	
/NM/		US- 6,433,835	08-13-2002	Hartson et al.	
/NM/		US- 2002/056140	09-05-2002	Oishi et al.	
/NM/		US- 5,600,573	02-04-1997	Hendricks et al.	
/NM/		US- 5,734,853	03-31-1998	Hendricks et al.	
/NM/		US- 2002/0104083	08-01-2002	Hendricks et al.	
/NM/		US- 6,834,039	12-21-2004	Kelly et al.	
/NM/		US- 6,754,277	06-22-2004	Heinzelman et al.	
/NM/		US- 6,754,715	06-22-2004	Cannon et al.	
/NM/		US- 2002/0059597	05-16-2002	Kikinis et al.	
/NM/		US- 5,579,055	11-26-1998	Hamilton et al.	
/NM/		US- 6,510,553	01-21-2003	Hazra	
/NM/		US- 5,881,302	03-09-1999	Omata	
/NM/		US- 6,182,384	02-20-2001	Dally et al.	
/NM/		US- 4,128,880	12-05-1978	Cray et al.	
/NM/		US- 4,459,681	07-10-1984	Ohtsuka	
/NM/		US- 6,665,790	12-16-2003	Glossner et al.	
/NM/		US- 6,018,526	01-25-2000	Liu et al.	

**FOREIGN PATENT DOCUMENTS**

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		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				
/NM/		WO 00/72446	11-30-2000	Duncan et al.		
/NM/		WO 02/07425	01-24-2002	Wornell et al.		
/NM/		WO 02/84965	10-24-2002	Biru, Dagnachew		
/NM/		WO 92/22983	12-23-1992	Browne et al.		
/NM/		EP 0308241	03-22-1989	Matsushita Electric Ind. Co. Ltd.		
/NM/		EP 0577351	01-05-1994	Matsushita Electric Ind. Co. Ltd.		
/NM/		EP1 156634	11-21-2001	Lucent Technologies, Inc.		
/NM/		WO 94/23470	10-13-1994	Fenzi		
/NM/		WO 95/01676	01-12-1995	Grandfield		
/NM/		WO 99/55087	10-28-1999	Encamera Sciences		
/NM/						
/NM/						

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**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/NM/		Lucky, R.W.: "Techniques for adaptive equalization of digital communication systems" <i>Bell Systems Technical Journal</i> , vol. 45, no. 2, pp. 255-286, Feb. 1966.	
/NM/		Godard, D. N.: "Self-recovering equalization and carrier tracking in two-dimensional data communication systems," <i>IEEE Transactions on Communications</i> , vol. 28, no. 11, pp. 1867-1875, Oct. 1980.	
/NM/		Treichler, J. R., and Agee, B.G.: "A new approach to multipath correction of constant modulus signals," <i>IEEE Transactions on Acoustics, Speech, and Signal Processing</i> , vol. ASSP-31, no. 2, pp. 459-472, April 1983.	
/NM/		Casas R. A., et al.: "Current approaches to blind decision feedback equalization," in the textbook, "Signal processing advances in wireless and mobile communications: trends in channel estimation and equalization," edited by G. Giannakis, et al., Prentice Hall, Upper Saddle River, NJ, 2000.	
/NM/		Daneshmand, B. et al. "Finite Wordlength Requirements for Adaptive Signal Processing Elements in Digital QAM ADSL Systems." <i>Communications</i> , 1994. Supercomm/ICC '94, Conference Record, 'Serving Humanity Through Communications.' May 1, 1994. ISBN: 0780318250.	
/NM/		Naito, T. et al. "Adaptive Equalization Based on Internal Model Principle for Time-Varying Fading Channels." <i>IEEE</i> , October 1, 2001, pg. 363-368, XP010521667.	
/NM/		Evans, G: More Tools of the Trade: Modulators, Inside Custom A/V, <a href="http://www.hometeam.com/beta/0009customav.shtml">http://www.hometeam.com/beta/0009customav.shtml</a>	
/NM/		NetMedia: MM73/NMOD3 Triple Play Modulator Installation Manual. Net Media, Tucson, AZ (undated)	
/NM/		Ciciora, Dukes, Hartson, Hoarty, <i>Embedding high-speed data in analog signals</i> CED Magazine, December 2001, pg 92-100	
/NM/		Modem Cable Television Technology: Video, Voice, and Data Communications, 1999 Walter Ciciora, James Farmer, David Large, Morgan Kaufman ISBN 1-55860-416-2,	
/NM/		Ormiston, et al "Compact Low Noise Receiving Antenna" <i>IEE Electronics Letters</i> , 9 July 1998, Vol., 34, No. 14, pp. 1367-1368	
/NM/		Tooley et al.; "Active Receiving Antenna", <i>Practical Wireless</i> , Mar. 1981, vol. 57, No. 3, pp. 52-55	
/NM/		Chen, Brian. <i>The Key to Unlocking Network Assets: Increasing Capacity by Embedding Content in Current Video Transmissions</i> . CED Magazine, December 2001. <a href="http://www.cedmagazine.com/ced/2001/1201/121.htm">http://www.cedmagazine.com/ced/2001/1201/121.htm</a> .	

Examiner Signature	/Nurul Matin/	Date Considered	12/21/2007
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STATEMENT BY APPLICANT**

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Sheet 7 of 8

**Complete if Known**

Application Number	10/782,316
Filing Date	February 19, 2004
First Named Inventor	Endres
Art Unit	2881 6/1
Examiner Name	Not Yet Assigned NY
Attorney Docket Number	S0465/283640

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/NM/		Press Release of WavePhone, Inc. entitled "WavePhone and the Canadian Broadcasting Corporation Enter an Agreement to Deliver Data Broadcasting Nationwide in Canada," dated March 29, 1995	
/NM/		Advertisement in <u>Investor's Business Daily</u> , "Technology Offers TV Broadcasters An Avenue Into Interactive Services", Monday, April 19, 1993	
/NM/		News Release of WavePhone, entitled "WavePhone and Belcom Sign Agreement to Co-Develop Russian Data Broadcasting System" (two pages, believed to have been released April 10, 1995)	
/NM/		Press Release of WavePhone entitled "FCC Proposed to Allow Digital Data Transmission Within the Video Portion of TV Broadcasts, in Response to WavePhone's Request, (two pages, believed to have been released April 25, 1995)	
/NM/		Advertisement in <u>The Indianapolis News</u> , WavePhone Stock Is On Roll", dated May 23, 1995	
/NM/		Advertisement in <u>Investor's Business Daily</u> , "Intel, WavePhone Set Technology Alliance, dated Monday, May 8, 1995	
/NM/		Press Release, entitled "Intel and WavePhone Sign Technology And Investment Agreement, (two pages, believed to have been released May 5, 1995)	
/NM/		Advertisement, <u>The Arizona Republic Business</u> , "Tempe firm, Intel Team Up to Send Data via TV", dated Saturday, May 6, 1995	
/NM/		Advertisement, <u>Arizona Business Gazette</u> , entitled "Skyway System Rides TV Signals to Distribute Data - Speed Key to WavePhone Technology", dated July 13, 1995	
/NM/		Advertisement, <u>Arizona Business Gazette</u> , entitled "Motivated CEO Leads WavePhone", dated July 13, 1995	
/NM/		Press Release of WavePhone, entitled "WavePhone Develops Data Casting System for Television Azteca In Mexico (two pages, believed to have been released August 8, 1995)	
/NM/		Press Release of WavePhone, entitled "WavePhone and Arizona State University Launch Distance Learning Service, (two pages, believed to have been released August 17, 1995)	

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Application Number	10/782,316
Filing Date	February 19, 2004
First Named Inventor	Endres
Art Unit	2681 2611
Examiner Name	Not Yet Assigned NM
Attorney Docket Number	S0465/283640

Sheet 8 of 8

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/NM/		"Digital Data Transmission Within the Video Portion of Television Broadcast Station Transmissions", MM docket No. 95-42.	
/NM/		G.M. Glasford, <u>Fundamentals of Television Engineering</u> , McGraw-Hill 1955.	
/NM/		D.G. Fink, <u>Television Engineering</u> , 2nd Edition, McGraw-Hill 1952.	
/NM/		C.G. Eilers, "TV Multichannel Sound -- The BTSC System," IEEE Transactions on Consumer electronics, August 1984.	
/NM/		Taylor, "The Vestigial Sideband and Other Tribulations," P. 203 of the 1988 National Cable Television Association Technical Papers.	
/NM/		"HDTV & Vestigial Sideband Syndrome" in the IEEE Transactions on Broadcasting, March 1990, p. 8.	
/NM/		Wave Generation & Shaping, Leonard Strauss, McGraw-Hill 1970, Chapters 1 and 2.	
/NM/		W. Ciciora et al., "A Tutorial on Ghost Canceling in Television Systems," IEEE Transactions on Consumer Electronics, Vol. CE-25, No. 1, Feb. 1979, pp. 9-44.	
/NM/		V. Thomas Rhyne, "Fundamentals of Digital System Design.	
/NM/		Hill, et al. - Introduction to Switching Theory & Logical Design," John Wiley & Sons 1968, SBN 471 39880 K.	
/NM/		Tanenbaum, A. "Computer Networks," Prentice Hall 1996, ISBN 0-1-349945-6.	
/NM/		Spohn, D.L., "Data Network Design," McGraw Hill, 1993 ISBN 0-07-06-360-X.	
/NM/		Kaufman, C., "Network Security," Prentice Hall, 1995 ISBN 0-13-061466-1.	
/NM/		Ariyavisitakul et al. "Joint Coding and Decision Feedback Equalization for Broadband Wireless Channels" IEEE; December 1998; pgs 1670-1678; Vol.19; No. 9	

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